



**THIRD THURSDAY
BREAKFAST BROADCAST**

Childhood Asthma - Case Management

Presented by:
Jeffrey Byrne, Asthma Program
Director
St. John's Riverside Hospital,
Yonkers, NY

Thanks to our Sponsors:

- School of Public Health, University at Albany
- NYS Department of Health
- NYS Community Health Partnership

Special Thanks to

- NYS Association of County Health Officials
- NYS Nurses Association

Viewer Call-In May 20, 2004

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Evaluations and post-tests must be completed by May 28, 2004.
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School of Public Health Continuing Education

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518-402-0330

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School Based Asthma Partnership



Asthma in Yonkers School Children

- Over 3,000 students, (more than 12%) have a history of asthma
- Add to that a significant number of undiagnosed cases of asthma

School Demographics in Yonkers, NY

- 46% Hispanic
- 31% African American
- 19% Caucasian
- 4% Asian

Factors that Contribute to Higher Rates of Asthma

- Urban air quality – smog; auto emissions.
- Older residential buildings with high levels
 - Dust
 - Mold and mildew
 - Lead paint and other toxic building materials
 - Rodents
 - Cats (kept as a form of rodent control)

Factors that Contribute to Higher Rates of Asthma (cont)

- Yonkers is the 4th largest city in NYS
- Higher poverty levels
- Over crowding in homes
- Low income families lack the funds to purchase basic asthma tools
 - spacers, peak flow meters, etc.
- Sizable immigrant population with asthma prevalent among the children.

Overuse of ER

- Patients admitted to emergency departments for asthma care repeatedly
- Pediatric patients with asthma diagnoses discharged without effective instruction in
 - Asthma education
 - Use of inhalers
 - Spacers
 - Peak flow meters

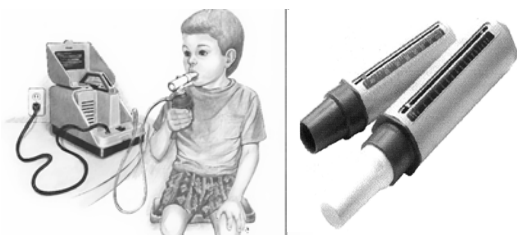
Asthma Management Program

- To address these issues, in the spring of 1998, a partnership for an Asthma Management Program was formed between:
 - Yonkers School District
 - St. John's Riverside Hospital

Asthma Program

- Education and training
- Physician's orders for treatment
- Medication
- Medical equipment:
 - Inhalers
 - Nebulizers
 - Peak flow meter
 - Asthma log

Nebulizer & Peak Flow Meter



Asthma Log Sample

Student: Joe Student Date: 01/01/03
 Does student have orders for controller medication? Yes ☒ No
Equipment Used: Outcome:
 Nebulizer: ✓ Returned to Class: ✓
 Peakflow Meter: ✓ Sent Home:
 MDI with spacer: Sent to ER:
 MDI without spacer:
 MDI was used to treat an asthma attack:
 MDI was used prophylactically (prevent attack) before recess, gym, etc.:

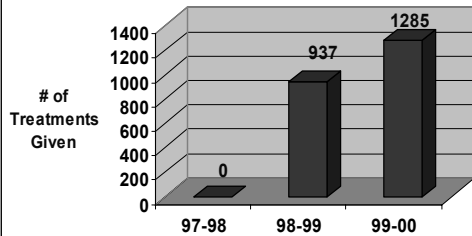
Outcomes

- 893 (95%) times a student returned to class
- 37 (4%) times a student was sent home
- 7 (1%) times a student was sent to an Emergency Department

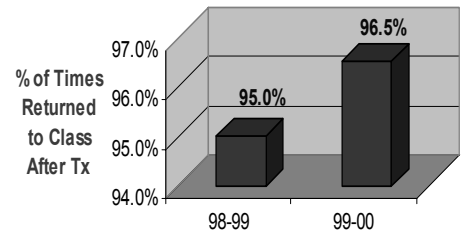
Outcomes

	Base Year	Intervention Year	
	97-98	98-99	%change
# of times sent home	183	37	80% ↓
# of times sent to ED	35	7	80% ↓

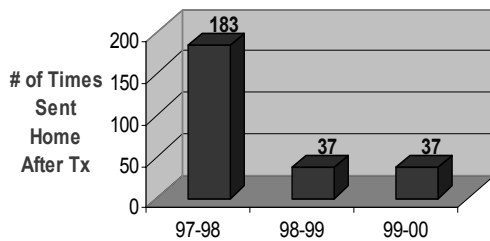
Equipment Utilization



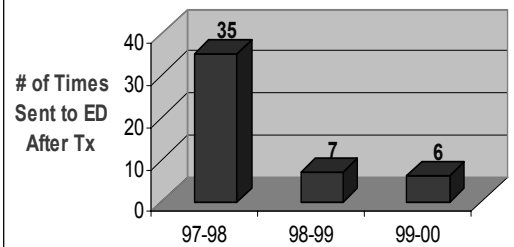
% of Times Returned to Class After Tx



of Times Sent Home After Tx



of Times Sent to ED After Tx



Intervention Year II



School Education Program

6 one hour sessions, taught by asthma team educators

- What is asthma?
- Living with asthma
- Asthma medications
- Use of spacers with inhalers
- Asthma triggers
- Asthma symptoms and warning signs

Responsibility

Students learn to take responsibility for their own asthma:

- Recognize symptoms and warnings
- Stay calm
- Tell an adult
- Know the steps to take
- Use medications properly
- Avoid exposure to irritants

Asthma Triggers

- Exercise
- Anxiety
- Weather changes
- Toxic emissions and fumes
- Tobacco smoke, bad indoor air quality
- Allergens
 - Pets (cats, birds, dogs, fur)
 - Rodents (mice, rats, roaches)
 - Food allergies
 - Dust mites, molds, mildew

Asthma Warning Signs

- Runny nose
- Tight feeling in chest
- Itchy throat
- Feeling weak
- Dry mouth
- Headache

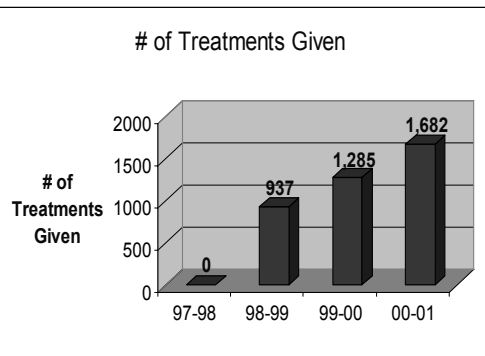
Treat the Cause Not just the Symptoms

Quick relief medication only treats a symptom, not the underlying cause which is inflammation in the lungs.

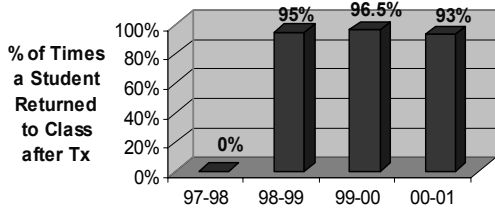
Intervention Year III

School year 2000-2001

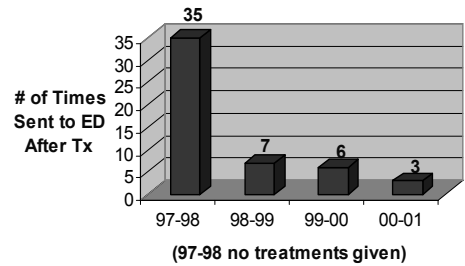
- Received 3 year \$600k grant from NYSDOH to continue and expand program
- New middle school opened bringing total number of schools to 58



% of Times a Student Returned to Class After Treatment



of Times a Student Was Sent to ED After Treatment

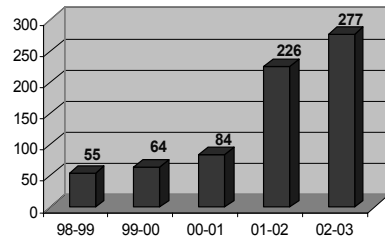


Intervention Year's IV & V
School year's 2004 2002, 2002 2003

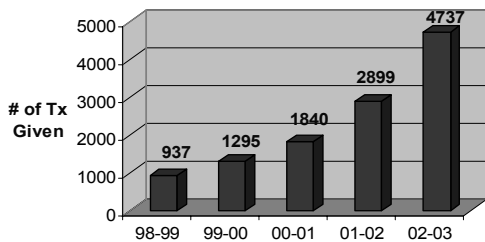
- Added a social worker
- Pinnacle- expansion throughout Westchester & Putnam Counties
- WestCOP day care/preschool program
- 39 school districts- 277 schools

School Based Asthma Partnership

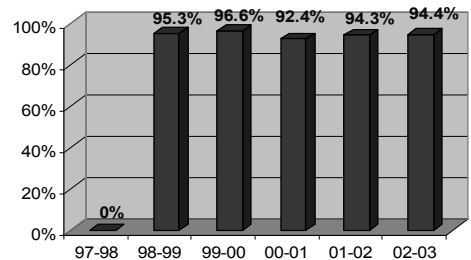
Number of Schools in Program



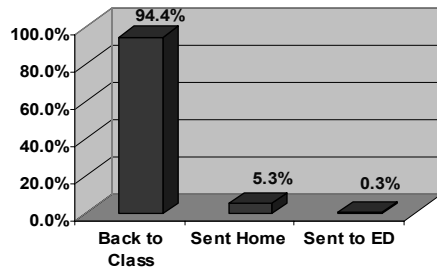
Treatments Given by School Nurses



% Returned to Class Post Tx

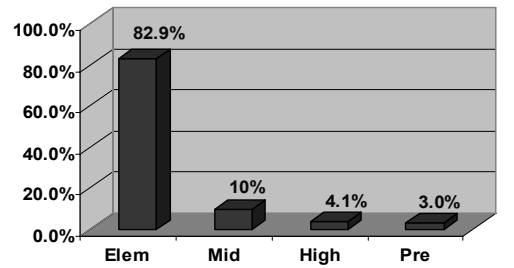


Student Outcomes Post Tx



11,708 Treatments given

Where Tx Were Given



Lessons Learned

- Proactive initiatives
- Have a plan in place
- Role of the nebulizer
- Asthma program acts as a catalyst

Next Step & Ongoing Efforts

- Get children onto “Controller Medications” (anti-inflammatory medication)
- Keep students IN CLASS and out of the nurse’s office

Impact on Schools

- Fewer children are being sent away from school increasing their capacity to learn.
- New roles for the school nurses.
- Changed the status quo regarding medical interventions at school.

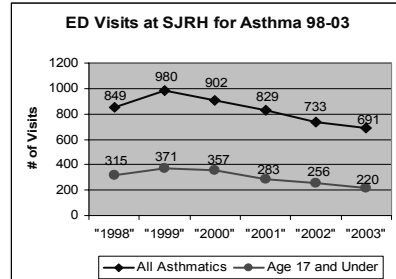
Impact on the Hospital

- New roles for respiratory therapists:
 - School educational program
- New services:
 - Asthma center
- Greater community involvement

Impact on Health Care System

- Reduced medical costs
- Fewer ambulance calls in the intervention years
- Fewer trips to the pediatrician
 - Estimated savings \$217,000- \$372,000

St. John's Hospital



29%↓ all asthmatics 41%↓ under age 17

Impact on Families

- Fewer trips from home or work to school or ED due to child's asthma episode.
- Reduced stress levels.
- Increased "comfort level" sending child to a school with a nebulizer available, rather than keep him/her home.

Asthma Program Partnership

- Hospital
- Schools
- Government
- Other donors:
 - Business
 - Philanthropic

Benefits

- All sides of partnership win.
- This helps the school system fulfill its primary mission: "Education"
- Complements the mission of the hospital to "Assist in the health enhancement of the community."

Replicating the Program

During school year 2003 ~~2004~~, the St. John's program has been selected as a model in a pilot program for school districts throughout New York State.

Asthma care in schools spreads

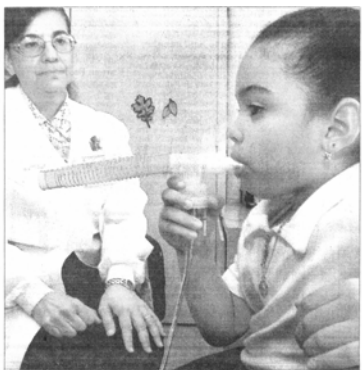
Yonkers program lets nurses treat students in offices

CAREN HALBINDER
The Journal News

Anareza Aquino spends a lot more time in school this year, thanks to a model program in Yonkers that allows her to get an asthma treatment in the nurse's office at School 13 and return to class.

When Anareza was in first grade last year, every time she had an asthma attack, her grandmother was called away from work to come get her, or she was rushed to the hospital. She missed 47 days of school.

Anareza is one of 2,014 children that Yonkers public schools identified as asthmatic. At 14 percent, Yonkers has a childhood asthma rate 25 percent higher than the national average, according to CDC research.



Yonkers Public School 13 nurse Elba Martinez, left, supervises pupil Anareza Aquino as Anareza inhales through a nebulizer.

Shant Byers/The Journal News

School Based Asthma Partnership

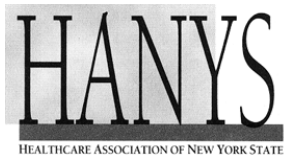
J.C.A.H.O.

Codman
Award



November 2001

School Based Asthma Partnership



2003 Annual Community Health
Service Award



Miguel Torres, a Public School 13 fourth-grader, thanks Olympic track star Jackie Joyner-Kersey for her experience yesterday at the school. Joyner-Kersey, who has asthma, talked to the Yonkers students as part of an asthma management program.

Shant Byers/The Journal News

‘It’s about them not giving up’

Jeff Byrne

jbyrne@riversidehealth.org

914-964-4312

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